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(19) (CA) **APPLICATION FOR CANADIAN PATENT** (12)

(54) Flexible Wallet Size Pill Container

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(73) Same as inventor

(57) 7 Claims

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Notice: This application is as filed and may therefore contain an incomplete specification.

Canada

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Abstract:

A pill container having a modular base member allowing customized use, a finger pressable bottom which allows selective prehension of a given pill, and a structure which is both fully flexible and watertight.

The flexible pill container has a flexible base member having a top surface provided with at least one pill receiving cavity, a flexible cover hingely connected to at least one peripheral end of said base member, and a releasable fastening means for releasably fastening the cover over the base member. When the pill container is bent, the releasable fastening means is adapted to allow a relative displacement between said the member and the cover while maintainig the cover fastened to the base.

The base member has a resiliently deformable bottom wall. The bottom wall allows a user upon application of a finger pressure to selectively raise a pill contained in one of the pill receiving cavities above the top surface of the base member.

Flexible wallet-size pill dispenser

Background of the invention:

Field of the invention:

The present invention relates to the field of pill dispensers and more particularly to a flexible wallet-size pill dispenser. The dispenser has a modular base, an impervious hinged cover and a bottom wall which can be pushed up to selectively raise a pill.

Prior art:

It is becoming increasingly common for patients, especially elderlies to be given medical prescriptions including a large number of pills which must be ingested at precise time intervals. These patients must therefore carry their medication on them during their regular daily activities. Most of them resort to carrying these pills in pill containers which are placed inside the pockets of their clothing. Conventional pill containers are usually of the type having a base provided with separation walls extending integrally from the base and forming divisions in which the pills are inserted. The bases are usually covered with a removable cover. The commercially available pill containers are made of rigid plastic. These conventional containers present a set of drawbacks. The first of these drawbacks is that since the containers are made of rigid material, they are not particularly suited to being carried in clothing pockets, especially pant pockets where they are particularly uncomfortable and create an unaesthetical bulge. Furthermore, the rigid containers if inserted in a pant pocket will after a while stretch the fabric and permanently deform it.

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Another drawback inherent to the rigid containers is that the individual pills are difficult to extract from the divisions since the user must resort to pivoting the container upside down thus potentially dropping other pills stored in the container.

Still another drawback of conventional rigid pill containers is that the division in which the pills are stored are given a fixed size which allows them to accommodate pills of various configurations and sizes. Since the separation walls are made of rigid material, smaller pills will have a tendency to waggle around in the divisions and to be crumbled against the walls.

Various attempts have been made to circumvent the above mentioned drawbacks. One of these attempts resulted in the structure disclosed in U.S. patent 1,984,351, granted to Lynn Dale Johnson in 1934.

The pill container described in the above mentioned patent has a base member provided with separations for receiving pills. The base member has a finger pushable bottom lining which allows the user by application of finger pressure to selectively raise a given pill above the upper surface of the base member for selective prehension. The base member is slidable inside a protective casing.

Johnson's invention thus allows for individual access to selective pills and allows for base members customized to specific uses having separations specifically sized for pills of given sizes and configurations.

However, the pill case described in U.S. patent 1,984,351 is still not adapted to be positioned in a clothing pocket since its structure is not adapted to

bend. The geometry of Johnson's container is clearly not adapted for bending action. The pill container has a parallelepiped shape body having surfaces joined by integrally bended edges. The bended edges provide bending rigidity.

Furthermore, it is stated at line 9 column 2 of Johnson's patent that "the body may be made of solid material..." and at line 10, 3rd column it is stated that the preferred materials are cardboard, hard paper or composition.

Summary of the invention:

The present invention proposes a pill dispenser offering the same advantages of having a modular base member allowing customized use, a finger pressable bottom which allows selective prehension of a given pill, but with the further advantages of a structure which is both fully flexible and watertight.

The flexible pill container has a flexible base member having a top surface provided with at least one pill receiving cavity, a flexible cover hingely connected to at least one peripheral end of said base member, and a releasable fastening means for releasably fastening the cover over the base member. When the pill container is bent, the releasable fastening means is adapted to allow a relative displacement between said the member and the cover while maintainig the cover fastened to the base. The base member has a resiliently deformable bottom wall. The bottom wall allows a user upon application of a finger pressure to selectively raise a pill contained in one of the pill receiving cavities above the top surface

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of the base member.

In one embodiment of the invention, the releasable fastening means is a pair of strips of "VELCRO" type material, a first strip of the pair of strips being fixed at the periphery of the base member and a second strip of the pair of strips being correspondingly fixed at the periphery of the cover. The first and second strips are adapted to engage each other for releasably fastening the cover over the base member.

In another embodiment of the invention, the releasable fastening means is a tongue and jaw arrangement, the tongue and jaw arrangement comprises a tongue extending integrally from the periphery of the base member and a jaw extending integrally from the periphery of the cover. The tongue is adapted to be snappingly inserted in the jaw for releasably fastening the cover over the base.

In yet another embodiment of the invention, the jaw is fixed to the base member while the tongue is fixed to the cover.

In the preferred embodiment, the base member has a peripheral frame defining an insert cavity and a set of modular inserts adapted to be selectively positioned inside the insert cavity. Each of the modular inserts has a specific configuration of pill receiving cavities.

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Brief description of the drawings:

An embodiment of the invention will now be described by way of example with reference to the following drawings in which:

Figure 1 is a perspective view of a flexible pill case embodying the invention with its cover in a closed position.

Figure 2 is a perspective view of a pill case embodying the invention held between the hands of a user with the cover in a partially open position.

Figure 3 is a top view of the pill case with its cover fully open.

Figure 4 is a cross-sectional view taken along arrows for 4 of figure 3.

Figure 5 is a detailed cross-sectional view of the front section of the pill case with the cover about to be opened.

Figure 6 is a perspective view of a frame component.

Figure 7 is a perspective view of a modular base component.

Figure 8 is a side view with a cutout section illustrating the action by which a selected pill is pushed upwardly by the fingers of a user.

Figure 9 is a side view of another embodiment of the invention.

Figure 10 is a transversal cross-sectional view taken along arrows 10-10 of figure 9 of the alternative embodiment of the invention.

Figure 11 is a detailed view of the hinged connection of the embodiment illustrated in figure 9.

Figure 11a is a detailed view illustrating the

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hinged connection with the cover in a open position.

Detailed description of the preferred embodiment:

Referring to figures 1 through 8, there is shown a flexible pill dispensing container 10 embodying the invention. The container 10 has an inner pill receiving block 12 made of relatively flexible material. The block 12 has a set of cavities 14 formed in its top surface 16. The block 12 is inserted in a peripheral frame 18. The frame 18 has a front member 20 extending integrally into a pair of side members 22 joined integrally into a back member 24. The members 20, 22 and 24 define an internal aperture 26 in which the block 12 is inserted.

The top surface of the front member 20 and of the side members 22 is provided with a peripheral recess 28 for receiving a corresponding strip of releasably fastening material such as the strips 30 of "Velcro" type material.

A piece of flexible liner 32 is fixed to the outer peripheral surface of the members 20, 22 and 24 by fastening means such as glue. The flexible liner 32 is adapted to cooperate with the peripheral frame 18, forming a pocket for receiving the block 12. As illustrated in figure 4, the liner 32 fully covers the bottom wall 34 of the block 12. The liner 32 extends integrally at the rear of the frame into an hinged cover 36. The liner 32 being made of flexible material, a section 38 extending between the section fixed to the rear member 24 and the cover 36 acts as an hinge means.

As illustrated in figures 2 and 3, a strip 40 of releasably fastening material such as "Velcro" is fixed to the front and side edges of the cover 36 by fastening

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means such as a layer of glue 42. As shown more specifically in figure 2, the strip 40 is adapted to engage the corresponding strip 30 for releasably locking the cover 36 in a closed position over the block 12.

A recess 44 and a set of corresponding cut-out sections 46 and 48 are provided respectively in the front member 20 and the front portion of the "Velcro" strips 30 and 40. As illustrated in figures 2 and 5, the recess 44 and the cutout sections 46 and 48 are for allowing the cover 46 to be grasped between the fingers 50 of a user. In use, once the cover 36 has been grasped, it can be pulled as illustrated in figure 2 thus allowing access to the block 12.

As illustrated in figures 2, 3 and 8, the cavities 14 are for receiving a corresponding set of pills 52.

As stated previously, the block 12 can be manufactured with various surface configurations. The size, number and shape of the cavities 14 being adapted to specific needs. A given user could have various blocks 12 with specific cavity patterns. Depending on the specific need for a given time period, the user would insert the customized block 12 inside the internal cavity 26.

In an alternative embodiment of the invention, the block 12 is made up of a serie of relatively small modular blocks which are juxtaposed inside the peripheral frame 18. This alternative embodiment gives the user even more flexibility with regards to the customization of the pill receiving cavity pattern.

One of the main characteristics of the present invention is that the pill dispensing container 10 is flexible. This characteristic is achieved not only

through the use of flexible materials, but also through the use of a fastening means between the cover 36 and the frame 18 which allows relative displacement of these components while maintaining a watertight connection. Indeed, the "Velcro" type of material which is used allows slight relative movements between the strips 40 attached to the cover 36 and the corresponding strip 30 attached to the frame 18 when the cover 10 is bended.

When the block 12 is made up of relatively small juxtaposed modular blocks, the relative motion between the modular blocks further increases the flexibility of the block 12.

In another embodiment 10' of the invention illustrated in figures 9 through 11a, the block 12' is inserted inside a cavity formed in a pocket frame 54. As with the previously described embodiment 10, the block 12' has a set of cavities 14' for receiving a corresponding set of pills 52'.

The pocket frame 54 has a front wall 56, a back wall 58 and a pair of side walls 60 extending integrally into a bottom wall 62 defining a recess into which the block 12' is inserted.

The back wall 58 extends integrally at its upper peripheral section into an hinge 64 leading integrally into a cover 66. As illustrated in figures 11 and 11a, the cover 66 is adapted to pivot according to the arrows 68 between a closed position and an opened position. The side walls 60 are provided with a recess area 70 on the top surface. A resilient prong shaped tongue 72 extends integrally from the recess area 70. The tongue 72 is adapted to be snappingly inserted in a corresponding set of jaws 74 extending integrally from the side peripheral

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edges of the cover 66.

With this embodiment, the tongue 72 and the jaw 74 provide a releasable watertight locking system which allows a slight relative longitudinal movement between the cover 66 and the remaining of the pill dispenser 10'. Indeed, if the dispenser 10' is bended longitudinally, the tongue 72 is adapted to slide inside the jaw 74 allowing the cover 76 to move relatively to the remaining of the structure.

Both the pill dispensers 10 and 10' are thus provided with releasable fastening means allowing relative movement of their respective covers 36 and 66.

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CLAIMS:

The embodiments of the invention in which an exclusive property is claimed are defined as follows:

1- A flexible pill container comprising:

a flexible base member having a top surface provided with at least one pill receiving cavity,

a flexible cover hingely connected to a peripheral segment of said base member,

a releasable fastening means for releasably fastening said cover over said base member, whereby when said pill container is bent, said releasable fastening means is adapted to allow a relative displacement between said base member and said cover while maintaining said cover fastened to said base.

2- A flexible pill container as recited in claim 1 wherein said base member has a resiliently deformable bottom wall, whereby said bottom wall allows a user upon application of a finger pressure to selectively raise a pill contained in one of said at least one pill receiving cavity above said top surface of said base member.

3- A flexible pill container as recited in claim 1 wherein said releasable fastening means is a pair of strips of "VELCRO" type material, a first strip of said pair of strips being fixed to the periphery of said base member and a second strip of said pair of strips being correspondingly fixed at the periphery of said cover, whereby said first and second strips are adapted to engage one another for releasably fastening said cover over said base member.

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4- A flexible pill container as recited in claim 1 wherein said releasable fastening means is a tongue and jaw arrangement, said tongue and jaw arrangement comprising a tongue extending integrally from the periphery of said base member and a jaw extending integrally from the periphery of said cover, whereby said tongue is adapted to be snappingly inserted in said jaw for releasably fastening said cover over said base.

5- A flexible pill container as recited in claim 1 wherein said releasable fastening means is a tongue and jaw arrangement, said tongue and jaw arrangement comprising a tongue extending integrally from the periphery of said cover and a jaw extending integrally from the periphery of said base member, whereby said tongue is adapted to be snappingly inserted in said jaw for releasably fastening said cover over said base.

6- A flexible pill container as recited in claim 1 wherein said base member has a peripheral frame defining an insert cavity and a modular insert adapted to be positioned inside said insert cavity, said modular insert having a pill receiving cavity pattern.

7- A flexible pill container as recited in claim 6 wherein said modular insert is formed of a set of juxtaposed modular blocks.

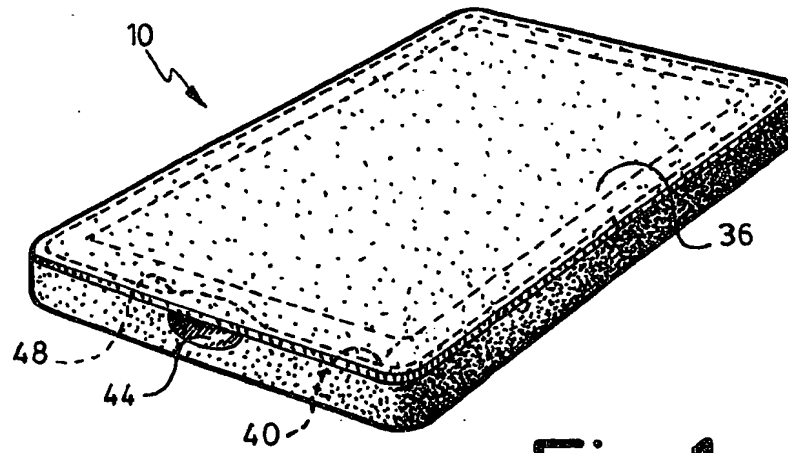


Fig.1

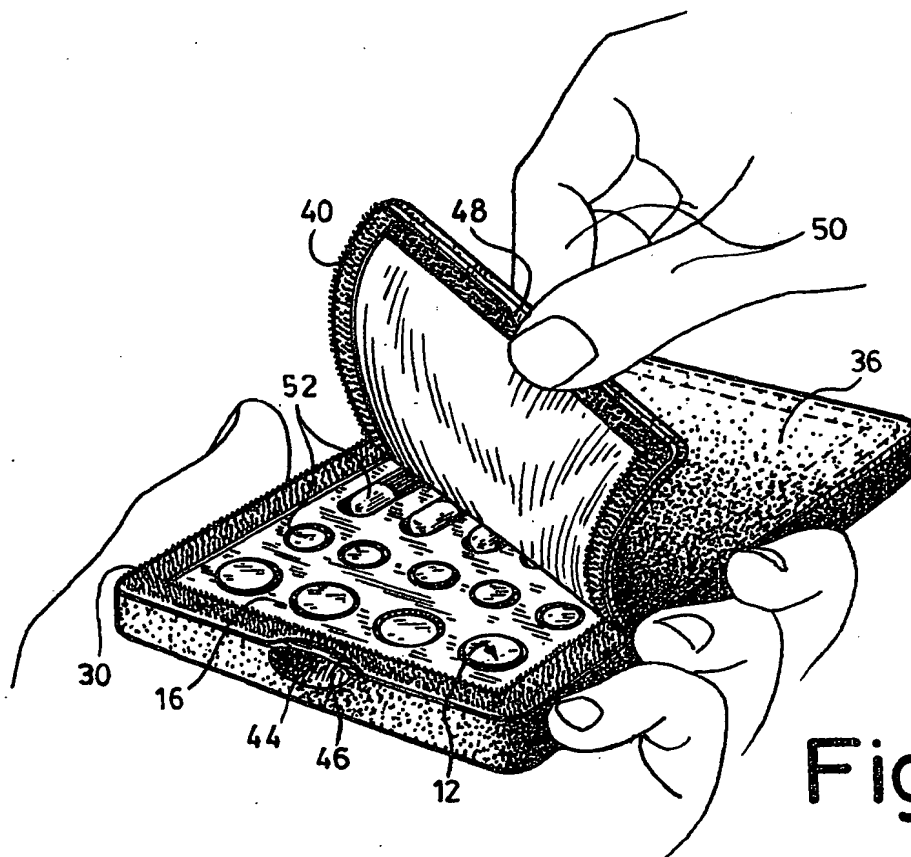


Fig.2

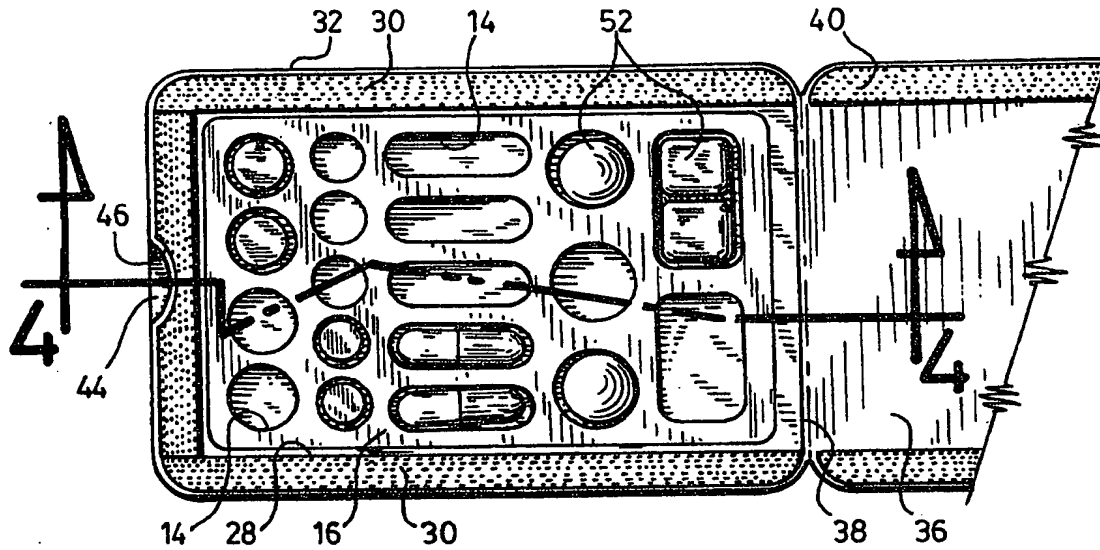


Fig.3

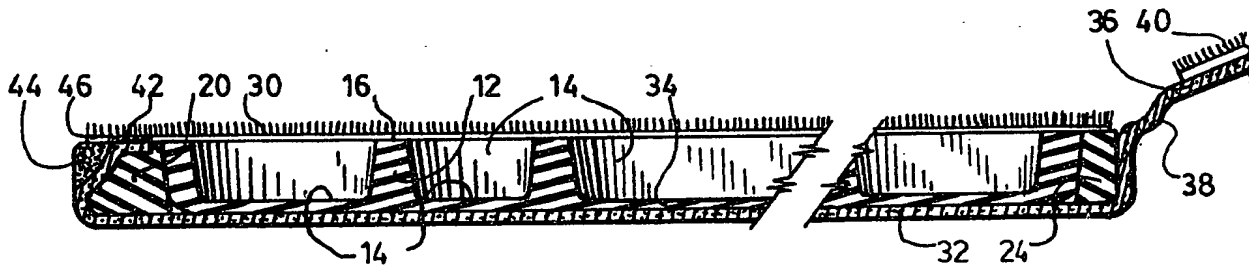


Fig.4

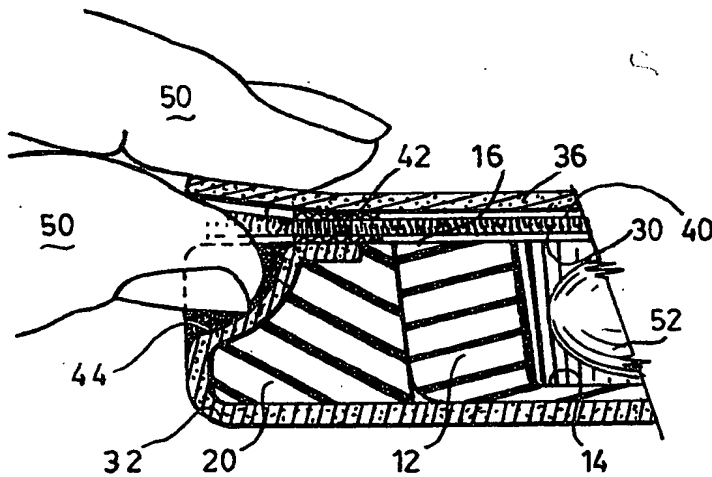


Fig.5

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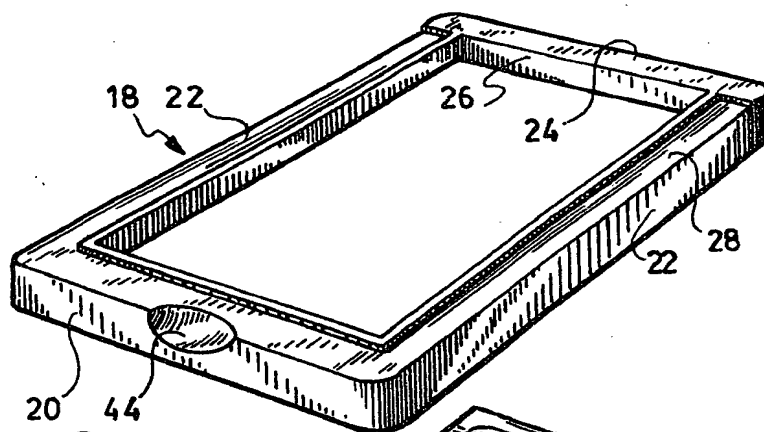


Fig. 6

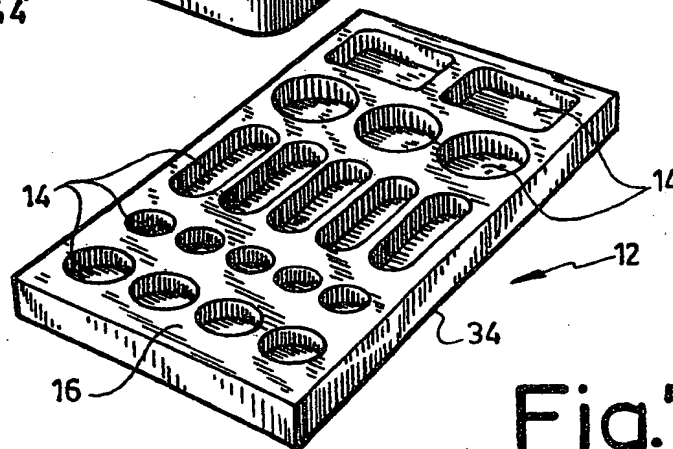


Fig. 7

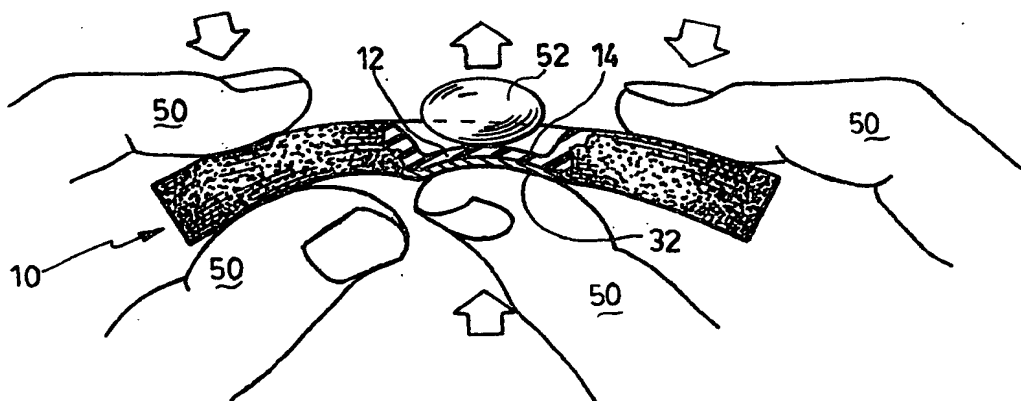
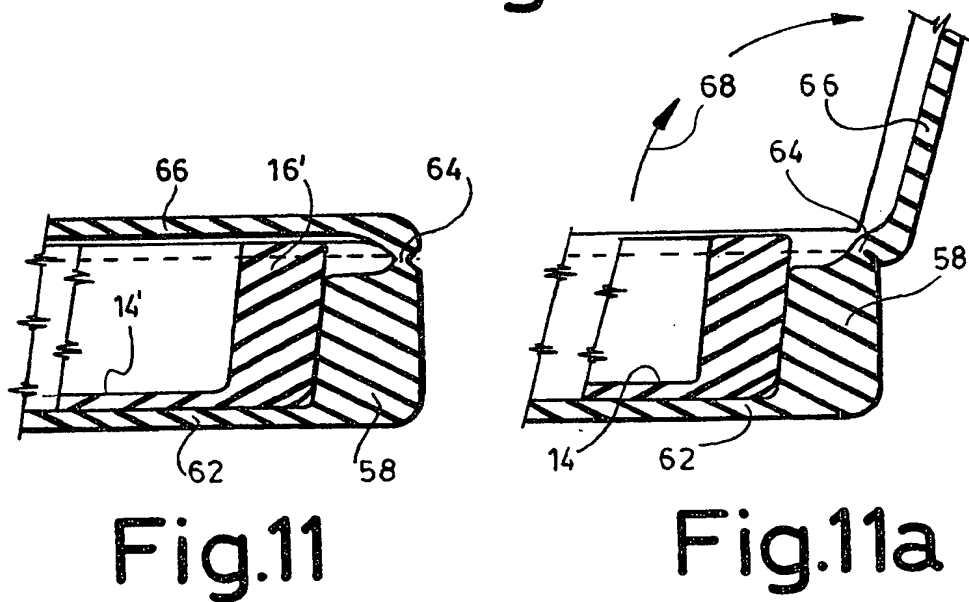
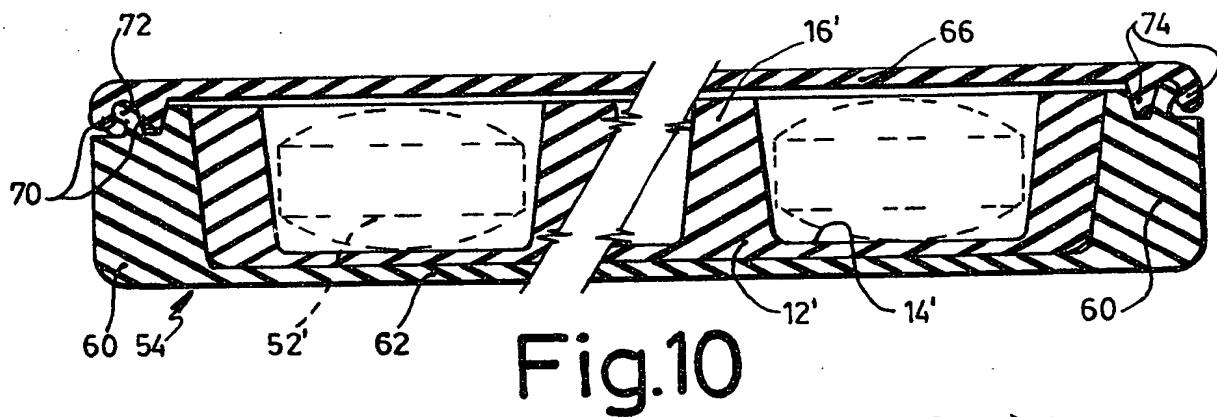
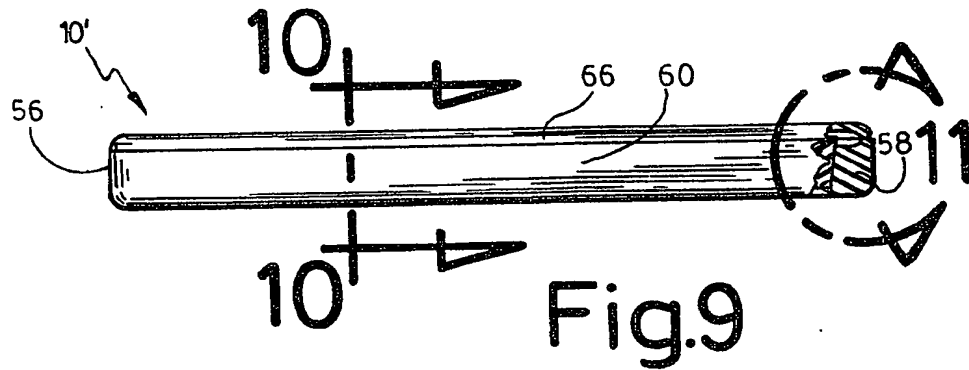


Fig. 8

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